



Windows 10 Mobile (LUMIA)

Community Group

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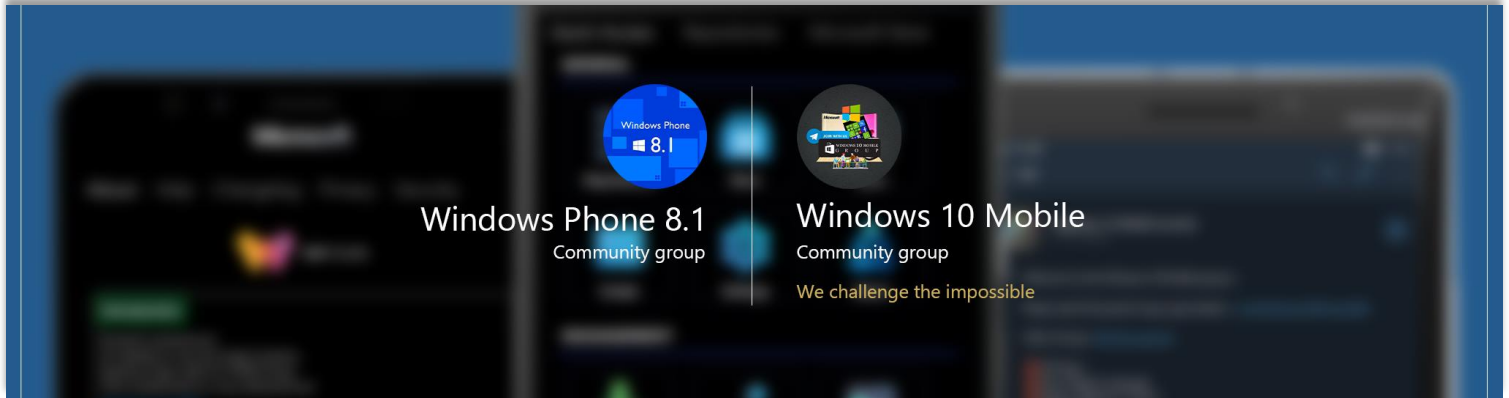


HOW TO BACKUP APPS IN W10M DEVICES

MASS STORAGE MODE-METHOD

Requirements

- ❖ Windows PC (Minimum: Windows 7 SP1 | Recommended: Windows 8 & above)
- ❖ Bootloader unlocked Windows 10 Mobile device.



W10M Group YouTube Channel



YOUTUBE

Apart from these documented Guides, we have started the roll up of **Video Versions** of each guide in our YouTube Channel.
Don't forget to **like** and **subscribe**!

NOT AVAILABLE AT THE MOMENT

NO DETAILS AVAILABLE YET

N/A



Table of Contents

BACKUP APPS/GAMES FROM W10M

WITH-PC



1) Introduction	Page 04
2) Preparations	Page 05
3) How to backup applications	Page 06
• Extract installed applications from W10M Device	Page 07
• Identify extracted application type	Page 10
• Repack extracted application	Page 11
4) Credits	Page 15





Introduction

So, what is the coverage of this guide?

Via this guide, we will show you **how to 'Extract' installed applications** from a Windows 10 Mobile device, **'Identify' the extracted package type** and then **how to 'Repack' the extracted packages** to an installable package.

Why would I need to backup the apps I have installed?

Windows 10 Mobile went out-of-support in January 2020, that means the services are also on it's way out.

Microsoft Store for an example won't be running forever now, and if it does, apps & games meant for Windows 10 Mobile will be delisted or taken out.

So, having the apps you have backed up will let you install those apps at anytime to any device completely off-line.

Do I must? Aren't there any third-party store?

Windows Universal Tool is the definitive third party store which is from us directly.

And PenguinStore also has an array of apps.

Although the repositories within W.U.T has thousands of app packages archived, it's not 100% complete in app selection.

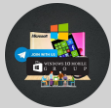
So, an application you have installed from Microsoft store might not be available in W.U.T

Thence, it's always better to have it backed up stored with you just in case!

(And contribute to W.U.T repositories with what it doesn't have by providing what you have so you can worry less about loosing them)

Requirements?

Bootloader Unlocked Windows 10 Mobile device.



Preparations

Download Windows Phone Internals



GITHUB



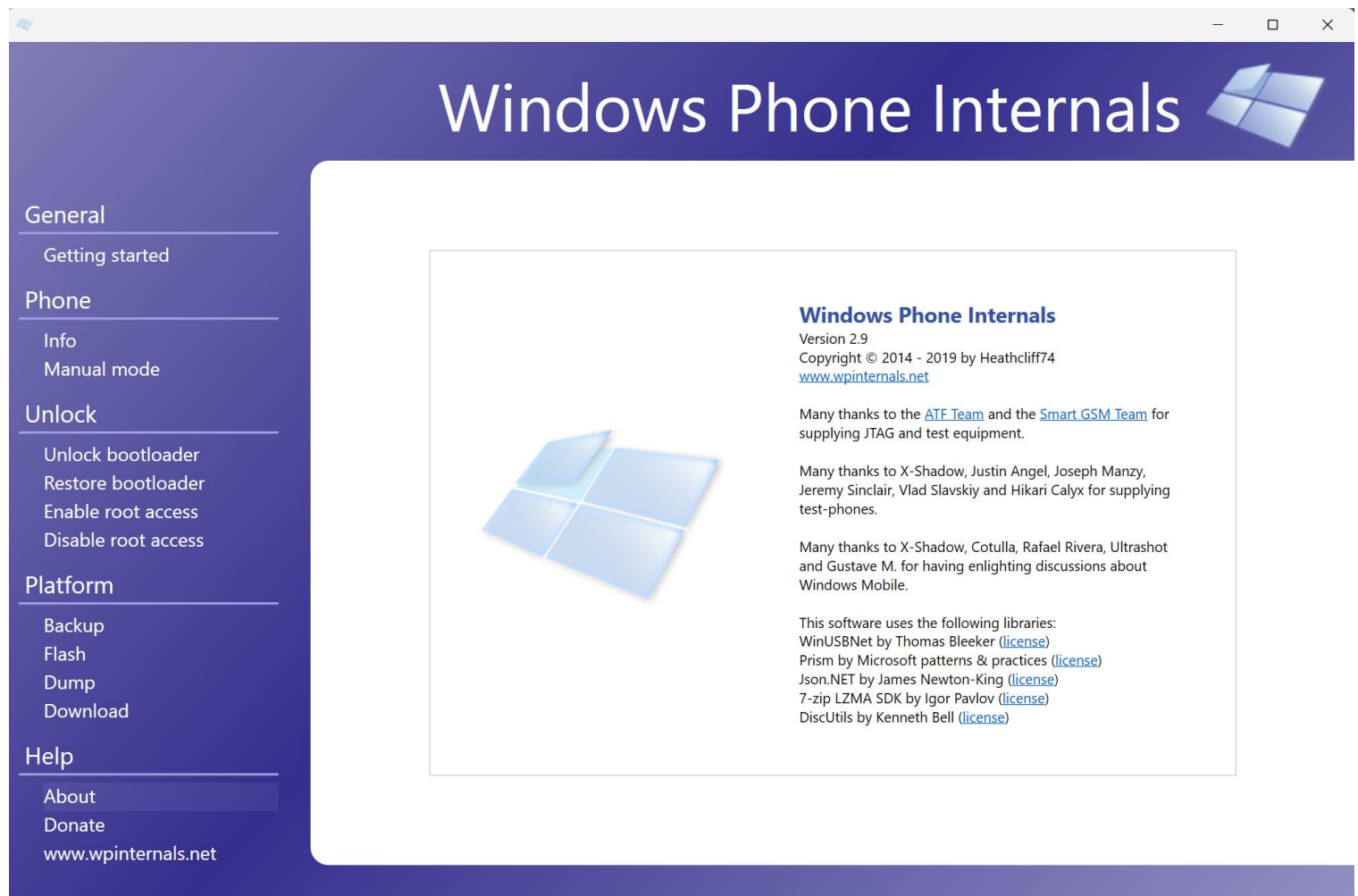
W.U.T



MEGA

| TIP

The Bootloader of your device must be already unlocked for this guide as the method described here needs it.



Download APPX Packer

(Used in later in the guide)



W.U.T



MEGA

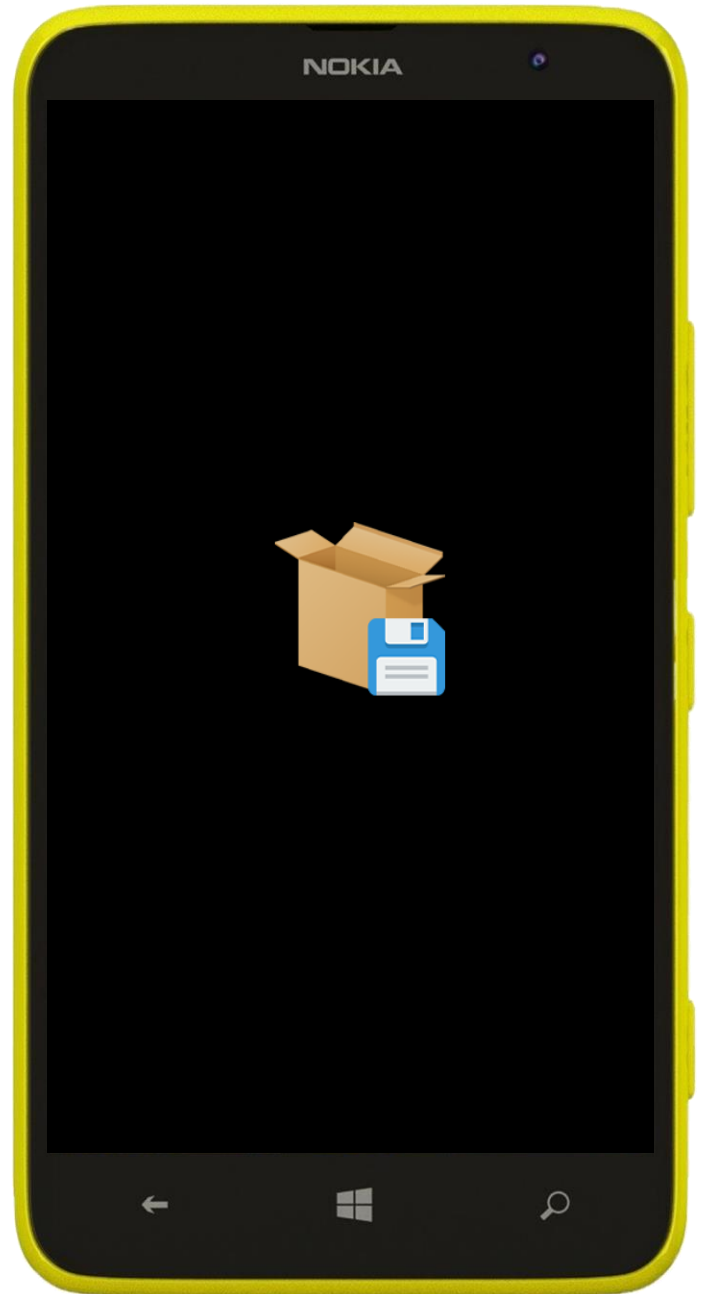


How to backup applications

There are mutiple methods to achieve this, **we will be showing you the method involving 'Mass Storage Mode'**

I shall divide the entire process into the three main stages to make it easier to follow;

1. [Extract installed applications from W10M Device.](#)
2. [Identify the extracted application type.](#)
3. [Repack the extracted application.](#)



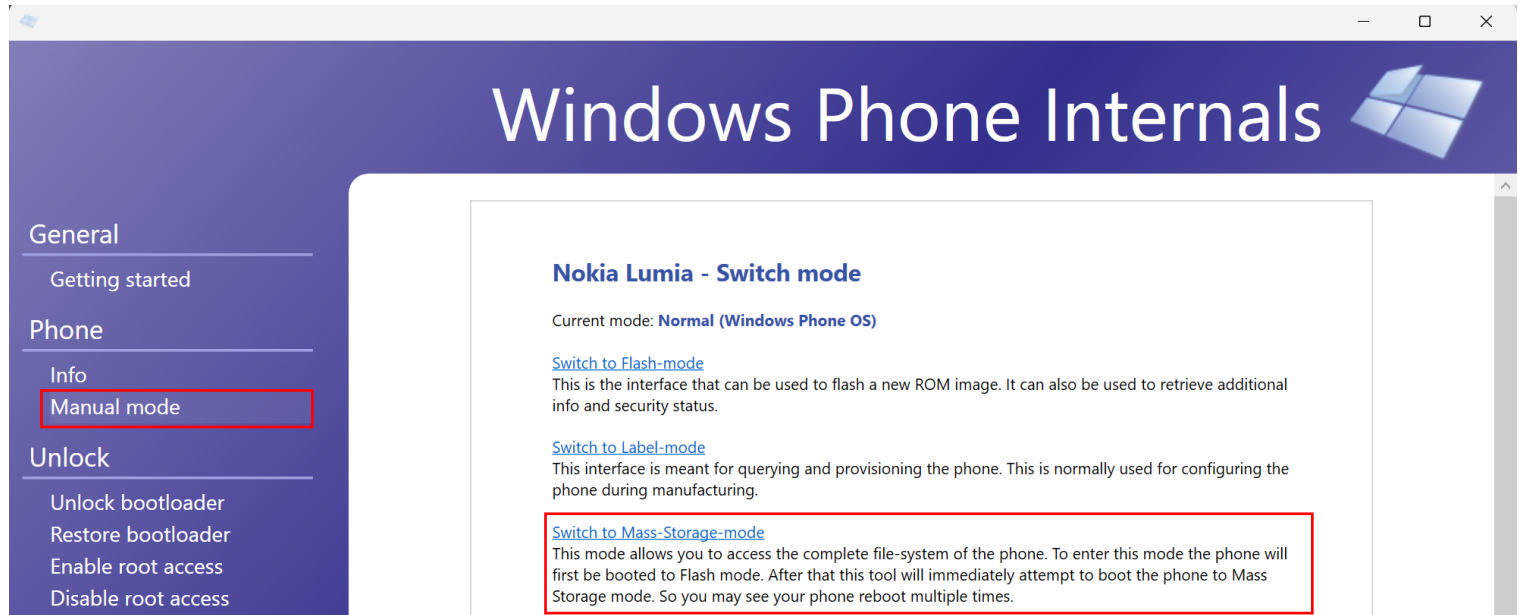


1. Extract installed applications from W10M Device

> Connect the Windows Phone device to your PC using a USB Connection.

> Open Windows Phone Internals.

> In the left pane, click **manual mode** and click on [Switch to Mass-Storage mode](#).



> Once you click it, first, it will boot to Flash app/mode.



First rebooting phone to Flash mode...

Then, once in flash mode, it will immediately try to boot to Mass Storage Mode.

(The first boot attempt will usually fail and will reboot the device, then it will boot to Mass Storage mode successfully)



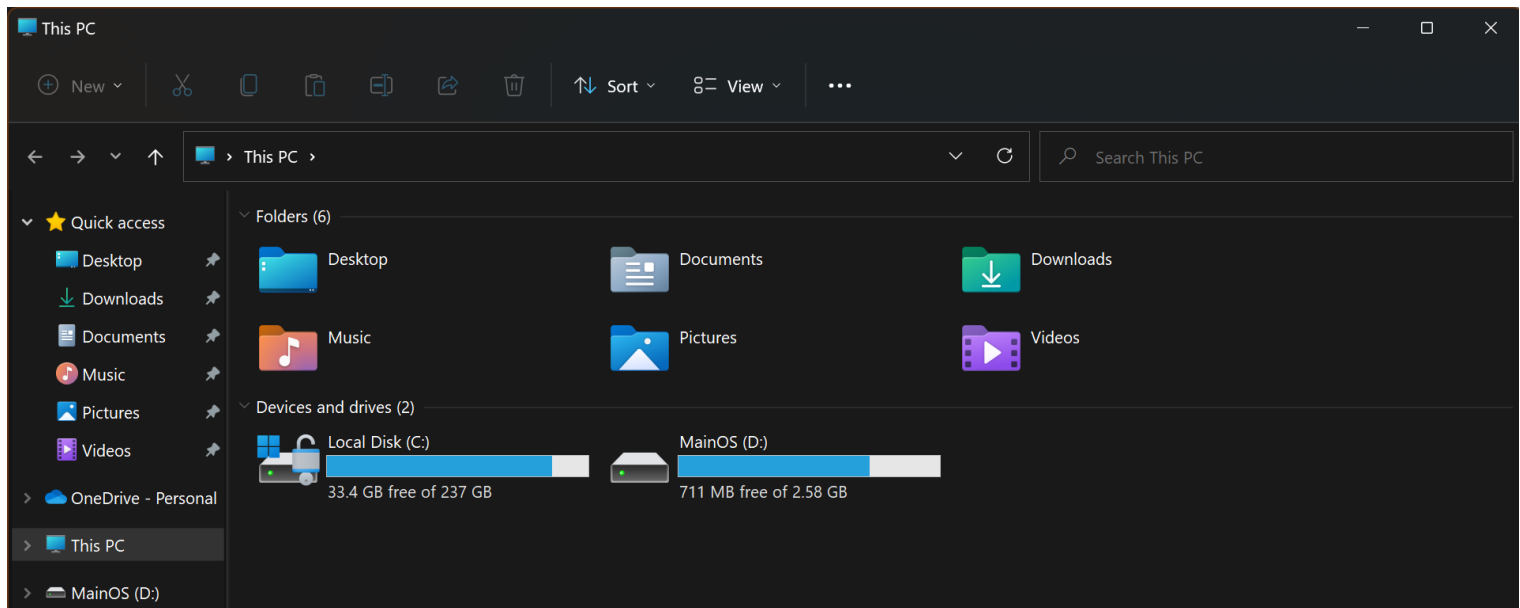
And now rebooting phone to Mass Storage mode...

When the screen of the phone is black for a while, it could be that the phone is already in Mass Storage Mode, but there is no drive-letter assigned. To resolve this issue, open Device Manager and manually assign a drive-letter to the MainOS partition of your phone, or open a command-prompt and type: diskpart automount enable.



> Once the device boots to Mass Storage Mode successfully, a new Drive named 'MainOS' will appear in File explorer.

(Phone screen will not display anything, it will remain black as long as the device is in Mass Storage mode)



WARNING!!

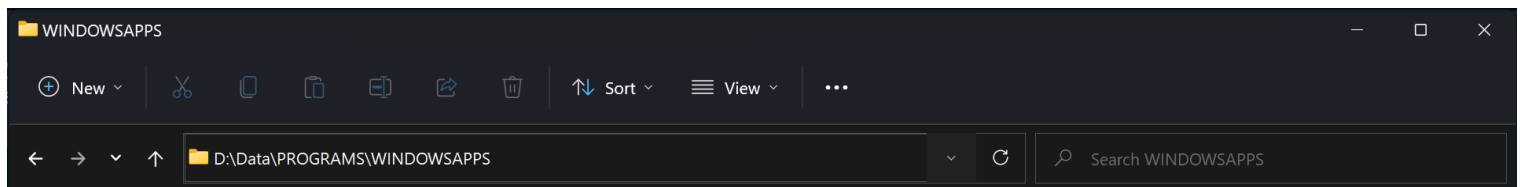
Do not mess around with anything in Mass Storage Mode, means;

- **Do not cut / Move / delete any folders/files.**
- **Do not attempt to resize / delete partitions.**
- **Do not utilize any Disk Repairs even if prompted by windows.**

Messing with the file system can make the device boot-loop, or even worse, bricked!!

> Navigate to the below path in the 'MainOS' drive.

MainOS\Data\PROGRAMS\WINDOWSAPPS



Getting a permission error when accessing the above said folder?

Then right click on the folder which errored out, go to **Properties** → **Security** & click "**Advanced**" button.

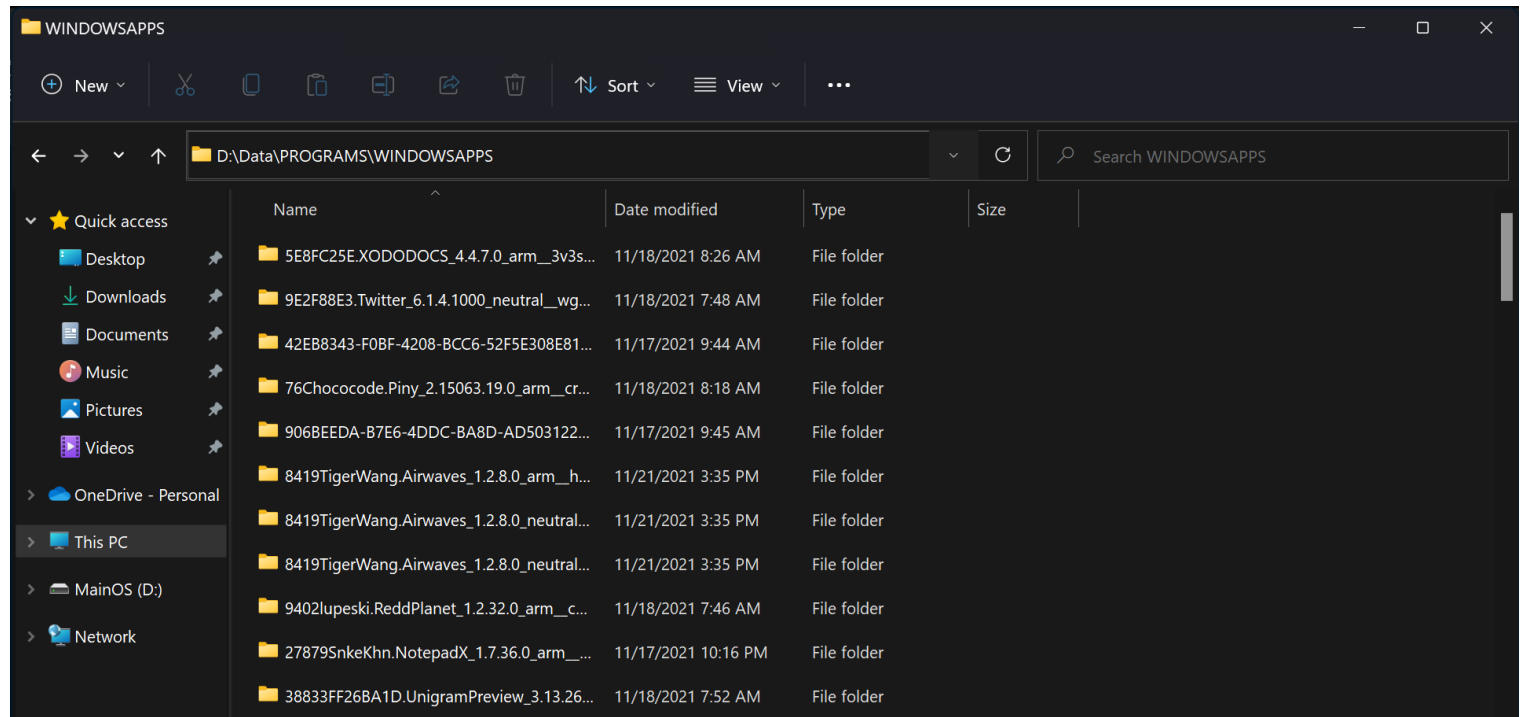
There, change the owner of the Folder, accept the change and re-attempt to open the folder & you will get access.



> Each of these folders represents an installed application in your device.

Copy the folder/s you need to your PC.

(Do not Cut/Modify/Delete the files/folders, messing around with system files can lead your phone to an un-bootable state)



TIP

If the folder name isn't helpful enough in identifying which app / game it includes, open the folder and look at the elements inside to identify the app / game.

(Commonly, looking for the app tiles images in 'Assets' is a reliable element or the manifest file to find it's name)

> Now that you have the application extracted out of your Windows 10 Mobile device, all left to do is to identify it's type and repack it!



2. Identify the extracted application type

There are mainly two windows phone application package types; **XAP & APPX**.

Since repacking procedure for these package types are different, we need to identify the type of the application we extracted from the phone prior to attempting to re-pack them.

> Open an extracted application folder to see it's contents.

> Look for the file "**WMAAppManifest.xml**" file.

A screenshot of a file explorer window. The file name "WMAAppManifest.xml" is highlighted in blue. To the right of the file name, the date and time "10/11/2021 4:00 PM" are displayed. Further to the right, the application name "NotepadX" is visible.

If this file is **present** among the files in the ZIP;

Then the package type of this app/game is **XAP**

If this file is **not present** among the files in the ZIP;

Then the package type of this app/game is **APPX**

APPX applications have "**AppxManifest.xml**" instead of "**WMAAppManifest.xml**" file.

A screenshot of a file explorer window. The file name "AppxManifest.xml" is highlighted in blue. To the right of the file name, the date and time "10/11/2021 4:00 PM" are displayed. Further to the right, the application name "NotepadX" is visible.

> All left to do now is to repack the App/Game!

NOTICE

Even though APPX applications **DON'T** contain the "**WMAAppManifest.xml**", XAP Applications **CAN** contain both "**AppxManifest.xml**" & "**WMAAppManifest.xml**" file.

So always look for the "**WMAAppManifest.xml**", don't decide by the "**AppxManifest.xml**" file.




3. Repack the extracted application

Now, all we gotta do is to re-pack the extracted application according to the package type.

Repack XAP applications

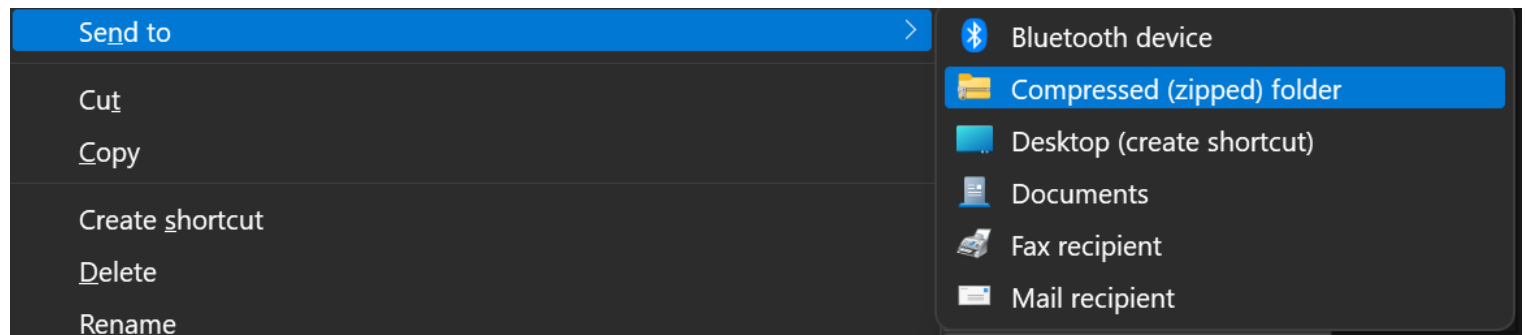
Go to the application files you need to repack.

> Find the **WMAAppPRHeader.xml** & Delete that file.

 WMAAppPRHeader.xml.xml	10/11/2021 4:00 PM	NotepadX	20 KB
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> Then, you need to **compress all the application files to a ZIP file**.

You can use the default Windows ZIP compression built-in to Windows explorer for this purpose.



> Once the file is compressed to a ZIP, **rename the extension** from **.zip** to **.xap**

It's that simple with XAP repacking!

 Creative Studio Beta_6.6.0.25.xap	10/28/2023 8:15 PM	Compressed (zipp...	9,456 KB
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That's all you need to do.



Repack APPX/Bundle applications

Make sure you have download APPX packer from [Preparations](#).

> Open APPX Packer by executing the batch file.

 Appx Packer.bat	1/1/2014 7:39 PM	Windows Batch File	3 KB
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> Then, you will be presented with this screen.



The process will have three stages where a user input is needed.

(Only two if you are using APPX Packer v3.0 instead of v2.5)

1. First, it will display **Enter the App Path:**

Enter the app path:

You need to enter the full path to the folder containing the application files which needed to be repacked into Appx/Bundle.

> Go to the folder and copy the address from the address bar in Windows Explorer.

> Paste it into CMD window and press Enter to continue.

2. Then, it will display **Enter the Output path:**

Enter the output path:

Now **you need to enter the path to any folder where you like to have the repacked Appx/Bundle package saved.**

(In other words, the save location for the repacked Application)

Ex: Create a new folder in desktop (*Preferably without spaces in name*), copy it's address from the address bar in Windows Explorer, paste it into CMD window & press Enter to Continue.



3. Lastly, it will display **Enter the app publisher:**

(This step is not present in APPX Packer v3.0)

For this, we need to enter the application's publisher's ID.

We can acquire this from the **AppxManifest.xml** file of the application, so go open it (*Default Windows notepad is enough for this purpose*)

Look for **Publisher** and **copy the whole ID including the Double quotes.**

Then paste it into the command window and press Enter.

AppxManifest.xml - Notepad

File Edit Format View Help

```
<?xml version="1.0" encoding="utf-8"?>
<Package xmlns="http://schemas.microsoft.com/appx/manifest/foundation/windows10" xmlns:mp="http://schemas.microsoft.com/appx/2014/phone
<!--
    ЭТОТ ФАЙЛ МАНИФЕСТА ПАКЕТА СОЗДАН ПРОЦЕССОМ СБОРКИ.

    Изменения этого файла будут потеряны при его повторном создании. Чтобы исправить ошибки в этом файле, измените исходный файл .appx

Дополнительные сведения о файлах манифестов приложений см. по адресу http://go.microsoft.com/fwlink/?LinkID=241727
-->
<Identity Name="BooStudioLLC.8ZipNew" Publisher="CN=DAC4344D-4C49-4539-938D-A1947B946DCD" Version="1.2.132.0" ProcessorArchitecture="
mp:PhoneIdentity PhoneProductId="9da1d93f-2909-4c02-a7de-2a28c052c5f8" PhonePublisherId="4f353c3c-f5b1-4ead-9491-db5d04ffecd" />
<Properties>
  <DisplayName>8 Zip</DisplayName>
  <PublisherDisplayName>Finebits OÜ</PublisherDisplayName>
  <Logo>Assets\StoreLogo.png</Logo>
</Properties>
<Dependencies>
  <TargetDeviceFamily Name="Windows.Universal" MinVersion="10.0.15063.0" MaxVersionTested="10.0.15063.0" />
  <PackageDependency Name="Microsoft.NET.Native.Framework.1.6" MinVersion="1.6.24903.0" Publisher="CN=Microsoft Corporation, O=Microso
  <PackageDependency Name="Microsoft.NET.Native.Runtime.1.6" MinVersion="1.6.24903.0" Publisher="CN=Microsoft Corporation, O=Microso
  <PackageDependency Name="Microsoft.Advertising.Xaml" MinVersion="10.1703.1.0" Publisher="CN=Microsoft Corporation, O=Microsoft Corp
  <PackageDependency Name="Microsoft.Services.Store.Engagement" MinVersion="10.0.1610.0" Publisher="CN=Microsoft Corporation, O=Micro
  <PackageDependency Name="Microsoft.VCLibs.140.00" MinVersion="14.0.24123.0" Publisher="CN=Microsoft Corporation, O=Microsoft Corpor
</Dependencies>
<Resources>
  <Resource Language="EN" />
  <Resource Language="AR" />
  <Resource Language="AZ-LATN" />
```

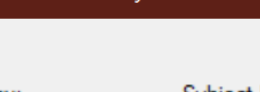
Ln 10, Col 92 100% Windows (CRLF) UTF-8 with BOM

Example Publisher ID in a AppManifest file

> Then paste it to the Appx Packer and press enter.

> It will now start repacking, during the last phase of the process, it will prompt you to assign a security key for the package.

Click **“None”** for it.



Create Private Key Password

Key: Subject Key

Password:

Confirm Password:

OK None Cancel



> When finished, the windows will turn to White and the text to Blue.

Make sure the Highlighted Lines are also in your packer in the end.

Otherwise, repacking is not completed successfully and you will have to do it again.

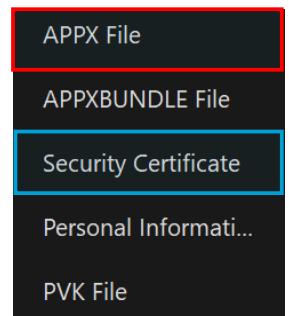
```
APPX Packer by FADIL FADZ
ppxbundle" (output file name).
Adding "\\?\C:\Users\lasit\Desktop\App installer package\App installer.appx" to
the bundle as a payload package. Its path in the bundle is "App installer.appx"
.
Bundle creation succeeded.
The following certificate was selected:
    Issued to: Microsoft Corporation
    Issued by: Microsoft Corporation
    Expires:   Sun Jan 01 05:29:59 2040
    SHA1 hash: C283B4CFDDE959A1ADC1CD5DCE46EE4890AE01B8

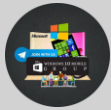
Done Adding Additional Store
Successfully signed: C:\Users\lasit\Desktop\App installer package\App installer
.appxbundle

Number of files successfully Signed: 1
Number of warnings: 0
Number of errors: 0
```

Notes to consider

- The Re-Packed packages can be found in the Output folder you gave to the packer when asked in the second step.
- In the Output folder, you will see many files.
But you only need "APPX" & "Security Certificate" file (Certificate file also not needed if your device is Interop Unlocked)
- The APPXBUNDLE file cannot be installed from Phone, you can deploy it from PC using WP8.1 Application Deployment tool in WP8.1 SDK.
- If the app you repacked is a WP8.1 Appx file, deploy the APPXBUNDLE file from PC like stated above.





Credits

- ✓ Heathcliff74 & Gustave Monce for Windows Phone Internals
- ✓ Fadil Fadz for APPX Packer.

That's all for this guide!

THANK YOU!!

Lasitha Samarasinghe

